

Hitchcock's Machine Tool Blue Book

JULY, 1932

TWENTY-SEVENTH YEAR



Now . . .
A Size for Every Need
SPEED
SPOT WELDERS



½ to 50 K.V.A.

As Low As

\$ 55.

OVER 20,000 IN USE

Speed Spot Welding eliminates the use of screws,
bolts, rivets, brazing or soldering

Submit Samples for Production Estimates and Details

EISLER ELECTRIC

763 S. 13th Street

NEWARK, N. J.

Distributor and Dealer Connections Desired

PUBLISHED AT 508 So. DEARBORN ST. CHICAGO

"Cost per Hole!"

The only sound basis upon which reamers should be bought is "How much will they cost per hole reamed during their useful life?"

Peerless High Speed Reamers, for production reaming, stand without a peer for the maximum number of holes per reamer, and most economical cost-per-hole reamed.

If you are interested in this modern, scientific way of buying reamers, ask us to send you Performance Digests Nos. 53, 54, 55, 64, 78, 84, 85 and 86, together with complete instruction forms for making a comprehensive reamer test in your own shop.



TWIST DRILL COMPANY
CLEVELAND
NEW YORK-CHICAGO-LONDON
SAN FRANCISCO

The **CLEVELAND**
TWIST DRILL COMPANY
CLEVELAND
TRADE MARK REG. U. S. PAT. OFF. AND FOREIGN COUNTRIES

Hitchcock's
**Machine Tool
Blue Book**

**Selected
Circulation**

**25,200
Monthly**

JULY, 1932

TWENTY-SEVENTH YEAR

Double-Barreled Benefits

Yes, its benefits are double-barreled . . . its service is broader and its costs are lower.

SERVICE—More copies of the "Blue Book" go to concerns worth \$20,000 to \$1,000,000 than the total A B C circulation of any of the large papers in its field . . . a startling and significant fact which few people realize.

COSTS—For each dollar of cost the "Blue Book" delivers a full-page advertisement to 625 responsible buyers of metal-working machinery . . . a cost that is unequalled for the service rendered.

And it works . . . it is practical . . . it is effective . . . it delivers the goods . . . and it makes the dollar go farther.

Your competitors are retrenching just at a time when buyers are investigating and planning millions of dollars worth of orders for release at the opportune time.

RIGHT NOW, while your competitors are retrenching and buyers are planning . . . right now is the time to make your bid for that business, by taking advantage of the double-barreled benefits afforded by the "Blue Book" service . . . It means so much to you, and the cost is hardly more than nominal.

Published By

Hitchcock Publishing Co.
508 S. Dearborn St., Chicago, Ill.

Consult the Classified Finding Index for your requirements



2½ times faster

-Roll-Formed!

ROLL-FORMING provides the speed that brings down costs. The metal furniture section shown above is a typical example of the savings thus made possible.

Brake-formed, three operations were required. Two operators produced 200 ten-foot lengths per hour. Formed on a McKinney Roll-Forming Machine, the same section is now produced at the rate of 500 lengths per hour, in one operation and with only one operator!

McKinney Roll-Forming is applicable to a wide range of materials and to an unlimited variety of sections. Let McKinney engineers advise you whether the mouldings, tubing, channels or other similar metal products that you produce or use can be produced by roll-forming. If they can, very definite savings can be accurately predetermined and enjoyed. Submit samples or blueprints—today!

The McKinney Tool & Mfg. Co.
1684 Arabella Road, Cleveland, O.



Send latest bulletin on Roll-Forming
Equipment to:
Name _____
Company _____
Address _____

NOC-OUT

Automatic Roll Feeds For Punch Presses Speed Production

Secure automatic feeding with its many advantages for your punch presses by installing the NOC-OUT Automatic Reversible Feed. This small unit automatically feeds metal, paper, brake lining or any other stock from coils in lengths from 0 to 30 inches per stroke of press.

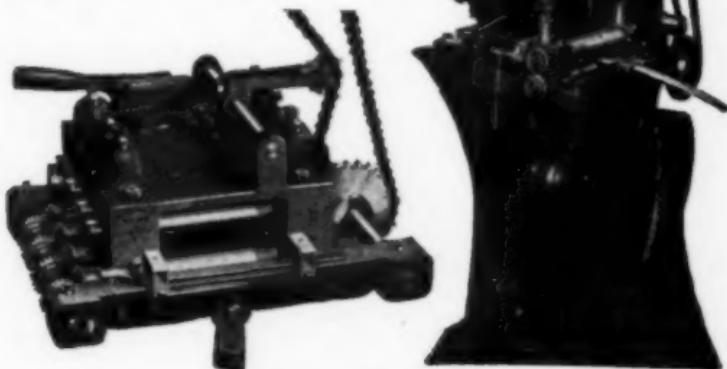
FASTER — ACCURATE — ECONOMICAL

Labor is saved, production is increased and your men safeguarded with this feed. Automatic feeding means full speed production all day long —there are no "let downs" as it eliminates the human element whose energies are limited. Can be readily installed on any press.

*We will gladly send you a copy of Bulletin "H"
describing NOC-OUT Automatic Roll Feeds.
Write for it and details of Our Free Trial Offer.*

We design and build progressive and automatic dies for high speed production. Submit samples of your stamping for estimate.

Wittek Mfg. Co.
4309 W. 24th Place,
Dept. "H" CHICAGO, ILL.



FOOTBURT



A Single Spindle Footbur Sipp Sensitive Drill

Made in three
sizes of single
and multiple
spindle models

More holes with this machine

Why? Because you can change speeds in two seconds or belts in ten seconds—because the automatic idlers keep the belt pulling to capacity at all times—because the full ball bearing equipment and accurate machining gives a smooth, fast cut.

Write for No. 650 Folders

The Foote-Burt Company, Cleveland, O.

FOOTBURT

KRW "Bench Type" ARBOR PRESS



No. 37D

\$28.50

F.O.B. FACTORY
ARCADE, N. Y.

Shipping Weight
140 lbs.

*Write for special
circular, just off
the press, cover-
ing K R W Hy-
draulic Arbor
Presses, air and
oil operated.*

Every shop needs one of these presses to handle hundreds of jobs now done with vises and sledge hammers. They soon pay for themselves in time and labor saved.

The K R W "Bench Type" Arbor Press is oversize in every particular. The throat is extra deep, taking work up to 13 inches in diameter. The ram is $1\frac{1}{2} \times 1\frac{1}{2} \times 17$ inches. Largest arbor is $1\frac{1}{8}$ inches. The height is 22 inches. Can be conveniently mounted on end of work bench, as it takes up a space of only 8x20 inches.

K. R. WILSON

10-16 Lock Street, Buffalo, N. Y., U. S. A.

EXPORT DEPT.
126 Liberty St., New York

WEST COAST BRANCH
647 Mateo St., Los Angeles



MACHINE SCREWS
MACHINE SCREW NUTS
WOOD SCREWS
LAG SCREWS
CAP SCREWS
PIPE PLUGS

Leading Industrial and
Automotive Concerns



SPECIFY

ELCO SCREWS



for Dependable Quality and un-
usually Prompt Service.



Standard sizes are shipped from
stock in any desired quantity.

All inquiries receive prompt, in-
telligent attention.



Write for Samples and Prices



**ELCO TOOL & SCREW
CORPORATION**

1808 Broadway, ROCKFORD, ILLINOIS



"It Pays to Use Good Screws"



A HEAVY DUTY Reynolds!



An
**Automatic
Screw Driving
Machine**
with a
**MAGAZINE
FEED**

This Machine Will Cut YOUR Costs

WITHOUT change or adjustment, the No. 2 magazines and drives any three consecutive sizes of wood or machine screws from Nos. 6 to 14 inclusive. It has many improvements and refinements, chief of which is the Chuck with Equalizing Jaws. Drives screws to center of an 18" circle in work not over 18" high, and gap column can be furnished to drive screws to center of 48" circle in work not over 6" high. Quickly interchangeable sets of parts can be furnished to increase range of screws driven — no change necessary for different length screws.

Write for complete information giving length and gauge of screws used, and we'll send facts and figures that will surprise you.

The Reynolds Machine Company
Dept. H. H. Massillon, Ohio

"THE MODERN WAY TO DRIVE SCREWS"

— BELOIT — ALLIGATOR SHEARS

Proof is in Performance

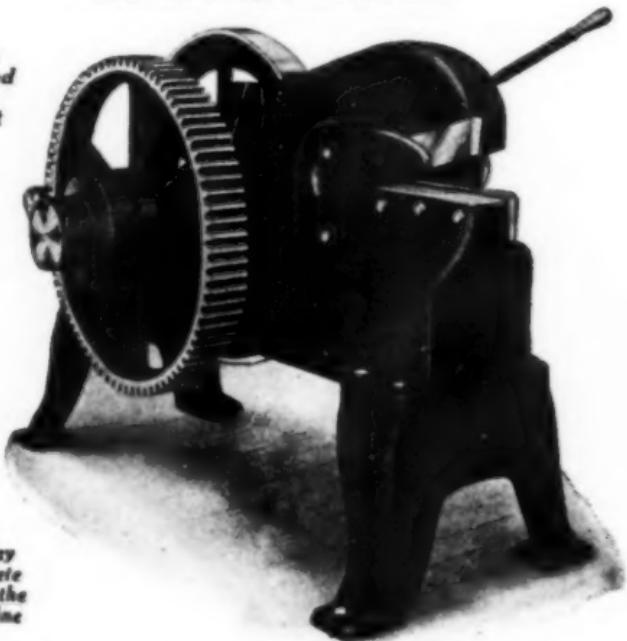
THE acid test of any machine is its ability to stand up under the day-by-day demands of shop routine. That BELOIT Alligator Shears meet this exacting test is evidenced by the following:

"Regarding the No. 46 which we have in use, we wish to express our satisfaction with its operation. It has never given us any trouble whatsoever and handles such lining as $6 \times \frac{1}{8}$ " heavy duty with ease."*

"I wish to inform you that the No. 46 has given us entire satisfaction and all the time it has been in operation (since 1921), we have not spent any money on repairs which speaks highly for this machine."*

Write for Complete Information

*Name
furnished
upon
request



Write Today
For Complete
Catalog of the
BELOIT Line

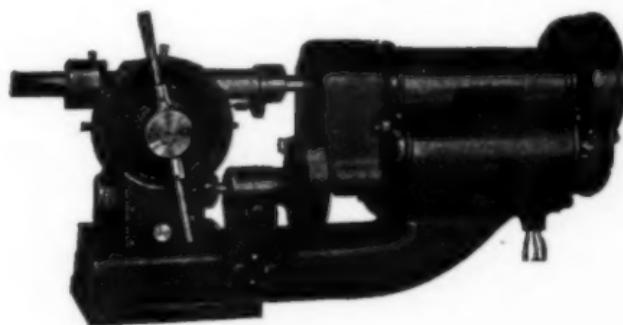
HENDLEY & WHITTEMORE CO.
100 So. State St., BELOIT, WIS.

PUNCHES — SHEARS — BENDING ROLLS

DO YOU KNOW

about the most modern practice in selecting equipment for small hole drilling and tapping, when production requirements are high?

HERE'S THE ANSWER!



Avey MOTOR DRIVEN DRILLING UNITS are a standard product—built in various types and sizes—and they can be mounted to suit your work.

Our engineering department is at your service. Let us figure on your drilling problems, and show you the way to lower costs.

THE AVEY DRILLING MACHINE CO.
CINCINNATI, OHIO

This cut shows our
**Rapid Clamping
Drill Jig** — tooled
complete for drilling
a large hole in a Ford
steering knuckle.



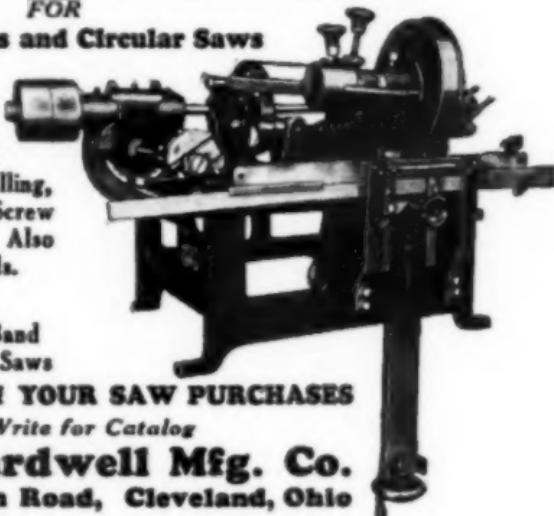
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new catalog
No. 3 showing
the different
set ups of our
drill jigs.*

SIEWEK TOOL COMPANY
10228 Woodward Avenue, Detroit, Michigan

WARDWELL

Combination Grinder

FOR
Bands, Hacks and Circular Saws



Model E-c
Salvages all Milling,
Slitting and Screw
Slotting Saws. Also
Hacks and Bands.

And all
Circular and Band
Wood Cutting Saws

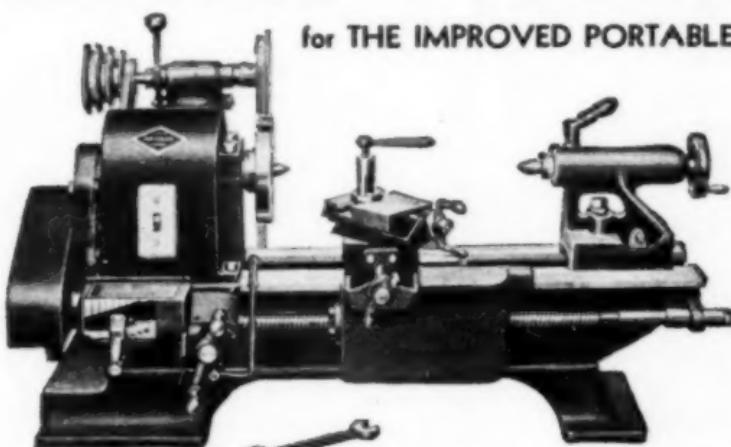
SAVE 75% of YOUR SAW PURCHASES

Write for Catalog

The Wardwell Mfg. Co.
3165 Fulton Road, Cleveland, Ohio

DEALERS WANTED

for THE IMPROVED PORTABLE



ARTISAN

Bench Lathe

STURDY—RIGID—VERSATILE

THE IMPROVED ARTISAN BENCH LATHE is extremely versatile and will handle a greater variety of work than any other bench lathe made. Bar stock or automobile axles up to 1-5/16" diameter can be passed through the spindle for tapering or threading; passenger car axles over 30" long can be machined. Right or left-hand screw threads can be cut 8 to 224 per inch, including 1 1/2 thread for pipe work.

Screw Cutting

Quick Change

"V" Belt Drive

11" Swing—18" between Centers

8 Spindle Speeds

Back Geared

1/3 H. P. Reversible Type Motor

Power from Light Socket

Write for Full Details and Low Price

ROCKY MOUNTAIN STEEL PRODUCTS
INC.

1358 Wall Street,

Los Angeles, California

Also Manufacturers of the "Improved ARTISAN" Master Lathe,
Floor type model, 36" between centers, swings 16" in gap.

Billions of Dollars for dependable employment

LARGE sums of money have been mobilized through the open market operations and the loan and discount facilities of the Federal Reserve banks, and by loans through the Reconstruction Finance Corporation.

Here is a great credit reserve—totalling billions of dollars—awaiting dependable employment.

Just as fast as suitable jobs can be found for this credit, confidence will be strengthened, trade will quicken, and men will be returned to work.

To help speed the effective employment of this huge army of credit dollars, committees of

leading industrialists and bankers have been appointed by the Governors of the twelve Federal Reserve Banks—Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Dallas, Kansas City, Minneapolis and San Francisco.

Like the divisional staffs of a great army, these committees will work to consolidate our position, and strengthen and strengthen our lines, so that a broad advance can be made.

Theirs is no simple task, but the readiness with which these industrial and banking leaders are joining together, and cooperating with national authorities, is a very encouraging factor in the present situation.

Housing Construction—An Opportunity



In previous depressions, a resumption of construction activity has been an important and vital factor in encouraging and stimulating business improvement. It assures employment of large numbers of men, not only directly, but also in the industries of supply.

There is undeniably an opportunity in many communities for construction of homes on a sound and economic basis, as well as a definite need for home repairs and improvements, and these matters will undoubtedly have early consideration.

The bringing together of worthy domestic building projects and substantial financing is typical of the many possibilities for beneficial action open to these committees in a wide range of fields.

The National Publishers' Association

"As the most nearly self-contained nation, we have within our own boundaries the elemental factors for recovery."

(From the Recommendation of the Committee on Unemployment Plans and Suggestions of the President's Organization on Unemployment Relief)

VICE

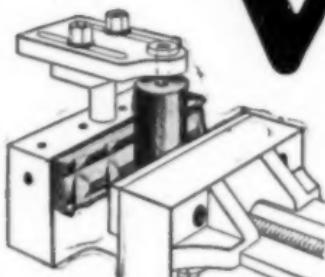


Fig. 3. V-Jaw for Round Work

All Vises are drilled and tapped to take our Standard JIG ATTACHMENTS

ANY VISE WILL PAY

Send for Circulars

THE GRAHAM MFG. CO.
70 Willard Ave., PROVIDENCE, R. I.



Fig. 2
Without Jig Attachments

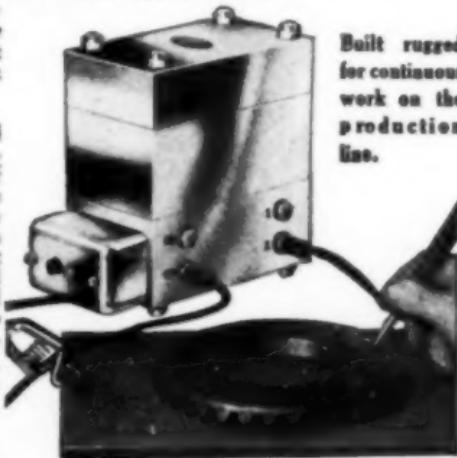
For Light and Heavy Etching

With 24 Stages of Control.

The LUMA Master Etchtool fulfills every marking requirement that can be done by an electric Etching outfit.

A Production Tool with as many as 24 different stages or varieties of control for regulating the depth of marking, this tool can be used for extra light marking of machinist scales, micrometers and fine tools or can be used for *extra heavy and deep* marking of rough and unfinished iron, cast iron, forgings, steel plates, etc.

Send for circular giving complete data and details of this modern instrument.



Built rugged for continuous work on the production line.

LUMA ELECTRIC EQUIPMENT CO.
DEPT. H.—Main P. O. Box No. 132—TOLEDO, OHIO



ARMSTRONG

TRADE MARK REGD U.S. PAT. OFFICE

Drop Forged, Carbon Steel WRENCHES

NEW 1932 Designs

The Best
Wrenches have
been made still Better

Admittedly the "best" wrenches, ARMSTRONG Drop Forged Wrenches have been made still better with new designs and a new Carbon Steel. Jaws are lean and tapering, will take a firm grip where other wrenches cannot reach. Handles are longer, increase leverage. The new steel makes these wrenches *stronger than any carbon steel wrenches previously made.* 37 types, all sizes—1 quality. Singly or in Sets.

Write for
Catalogs

ARMSTRONG BROS. TOOL CO.
"The Tool Holder People"
308 N. Francisco Ave., CHICAGO, U.S.A.



Make This Test

Send for a 1932 ARMSTRONG Wrench on "memo" bill, for test. If it isn't a better wrench than any you have ever used send it back.

1905  1932

FLEXIBLE SHAFT MACHINES FOR MANY OPERATIONS

YOU CAN'T GO WRONG WITH THE STRAND

Type MP-5



THEY MAKE GOOD

MANY TYPES AND SIZES

1/8 to 2 H. P.

HORIZONTAL

OR

VERTICAL

SEND FOR CATALOG

Manufactured By

N. A. STRAND & CO.

5001-5009 N. Lincoln St.,

Type ML-6



Chicago, Ill.

Grant NOISELESS SPINNING Riveter



*Highest Speed
Perfect Uniformity
Lowest Cost*

A Grant Riveter places and finishes one rivet every second it is in operation.

It will finish rivets to the exact degree of tightness or looseness that you desire, and the heads are perfectly formed and highly polished.

The Grant Riveter keeps operating costs at a minimum, and is so simple that unskilled labor can operate it as effectively as can skilled machinists.

Send samples of your riveting work and ask for a catalog

The Grant Mfg. & Machine Co.
C. E. Station, Bridgeport, Conn.

\$79.00

Complete as shown
less motor



9-inch Screw Cutting

BENCH LATHE

*Compound drive—Reverse feed
Threading dial*

Write for Circular

ATLAS PRESS CO., - Kalamazoo, Mich.

VANDERBEEK UNIVERSAL JOINTS



Are used in all kinds of machines where high grade Joints are needed. The very highest grade of workmanship goes into our Joints.

We specialize on Joints

for instrument work and light drive as well as airplane use. Hundreds of thousands of Vanderbeek Universal Joints are in daily use.

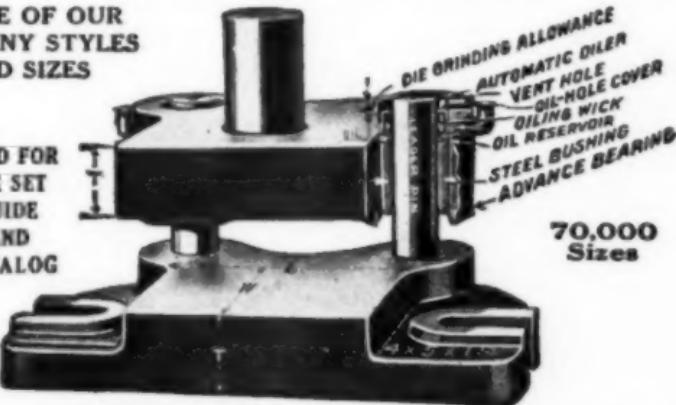
Write for Prices and State Your Quantities

American Tool Works, Inc.
25 High St., Hartford, Conn., U. S. A.

Automatically Oiled Die Sets

ONE OF OUR
MANY STYLES
AND SIZES

SEND FOR
DIE SET
GUIDE
AND
CATALOG



E. A. BAUMBACH MFG. CO.
GENERAL OFFICE AND WORKS
1810 South Kilbourn Ave., CHICAGO, ILLINOIS

Sales and Engineering Offices—Principal Cities U. S. A. and Canada

**Analysis of Circulation of
HITCHCOCK'S MACHINE TOOL BLUE BOOK**
By Dun and Bradstreet Ratings

(Corrected to December 1st, 1931)

To domestic concerns, and superintendents, works managers, production engineers, master-mechanics, etc., in such concerns rated at—

Exceeding \$1,000,000.....	2,181
\$500,000 to \$1,000,000.....	1,603
\$300,000 to \$ 500,000.....	1,529
\$200,000 to \$ 300,000.....	1,367
\$125,000 to \$ 200,000.....	1,784
\$ 75,000 to \$ 125,000.....	1,985
\$ 50,000 to \$ 75,000.....	1,417
\$ 20,000 to \$ 50,000.....	2,992
\$ 10,000 to \$ 20,000.....	1,983
\$ 5,000 to \$ 10,000.....	1,625

TOTAL to Private Concerns of over \$5,000.. 18,466

Steam and Street Railway Mechanical and Purchasing Officials, Government and Municipal Plants, Technical Schools, Electric Power Plants, Selected Foreign Importers and Users, Etc.,.....

3,411

TOTAL to Buyers of Known Responsibility.. 21,877

*Concerns quoted in Dun or Bradstreet, but without Capital Rating..... 2,116

Concerns not yet in either Dun or Bradstreet, which includes new industries..... 961

Concerns rated \$3,000 to \$5,000..... 465

Miscellaneous

195

TOTAL CIRCULATION **25,614**

*This group includes a considerable number of large concerns, and some small ones of high credit, whose capital rating is not given by either of the commercial agencies.

**No. 8 IMPERIAL
PUNCH WITH
BASE**

Operating handles
will not become
disengaged

Can Be Furnished
With or Without
Base

CAPACITY
 $\frac{3}{4}$ " hole through $\frac{1}{4}$ "
iron.
Weight, 16 lbs.
Length over all,
 $25\frac{1}{2}$ ".



**ANGLE IRON
SHEAR No. 4
Drop Forged**

Capacity $2 \times 2 \times \frac{1}{4}$ "
Angle Iron.
Weight 44 lbs.



**No. 50 ANGLE IRON
MITRE NOTCHER
and No. 51 ANGLE
IRON BENDER**

CAPACITY $2 \times 2 \times \frac{1}{4}$ "
ANGLE IRON OR
SMALLER.

Weight of Mitre Notcher
only 55 lbs.

Weight of Mitre Notcher
Bender only 43 lbs.

Write for Catalog on Entire Line

WHITNEY METAL TOOL COMPANY
95 FORBES ST.,
ROCKFORD, ILL.

CULLMAN SPROCKETS

—For—

**Block, Roller and
Silent Chains, over
45,000 in Stock.**

*Send for our new
160 page book.*



CULLMAN WHEEL COMPANY

1359 Altgeld St., **1-1** **Chicago, Ill.**

Speed Reducers—Flexible Couplings—Lathe Drives

Improved Thompson Universal Grinder

Self-contained and motor driven, this standard Grinder combines efficient means for the rapid and accurate production of every grinding operation required in a machine shop.

All standard machines equipped with auxiliary independent coarse cross feed for surface grinding.

Capacity 12" x 36"

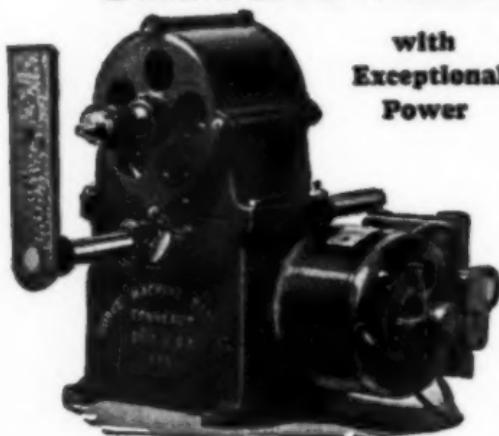
The Thompson Grinder Co.

1534 West Main St.,
SPRINGFIELD, OHIO



A NEW BURKE TAPPING MACHINE

with
Exceptional
Power



The new No. 606 Burke Tapping Machine belies its size in its remarkable power and speed. Handling $\frac{1}{8}$ " taps in cast-iron or $\frac{1}{16}$ " taps in steel, it is unusually useful. Compactly built, it is portable and can be placed in any convenient place.

*Write for
circulars
and prices.*

The Burke Machine Tool Co., 297 E. 16th St.,
Cleveland, Ohio

T. H. L. FRONT LEVER BENCH PUNCH

Malleable iron body; working parts hardened. Steel shaft and plunger. Die cannot lose alignment with punch. All parts interchangeable. Built for hardest, toughest work. Weight 70 lbs.

PRICE \$40

Extra Punches, 20 cents each; extra dies, 30 cents.

Capacity $\frac{1}{2}$ " holes through $\frac{3}{16}$ " steel; $\frac{13}{32}$ " through $\frac{1}{4}$ " steel. Can also be made for up to $\frac{5}{8}$ " holes through thinner metal. Punches and dies in stock from $\frac{1}{8}$ " to $\frac{1}{2}$ ".

Immediate shipment from stock

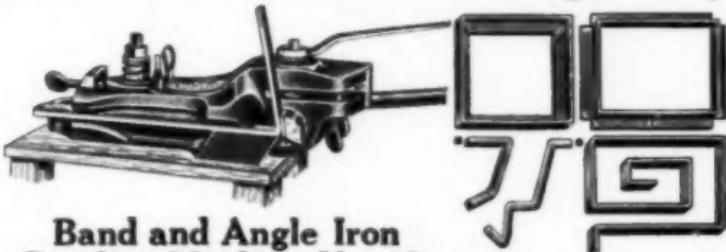
**T. H. LEWTHWAITE
MACHINE CO.**

(Est. 1890)

311 E. 47th St., NEW YORK



Production Machines Our Specialty



**Band and Angle Iron
Bending Machine No. 13**

Manufacturers of
Automatic Grinding and Polishing Machines,
Punch Presses, Shearing and Bending Machines.

Send for illustrated circulars and prices.

Excelsior Tool and Machine Co.
East St. Louis, Illinois

Blower, Sprayer, Suction-cleaner *Instantly Convertible ~ No Installation*

This portable electric blower delivers DRY air, **free from oil**, at high velocity, yet low pressure. It safely, quickly, and efficiently cleans motors, generators, converters, shafting, overhead piping, etc. Reduces fire risk and danger of "shorts" and "burnouts."

Instantly convertible for suction-cleaning stocks, bins, auto interiors, furniture, overhead pipes, shafts, line shafting, etc., or for spraying insecticides, deodorants, paints, lacquers, etc.

Attach to any light socket. Any voltage. Less than 2¢ an hour to run. Ball bearings—no oiling. 4 models. Used by over 20,000 concerns. Fully **guaranteed** by 20 year old company, originators and largest manufacturers of portable electric blowers.

Try this blower 10 days. Then pay for it or return it at our expense.

WRITE NOW For prices and descriptive folder No. 62-B.

CLEMENTS MFG. CO., 62-B Clements Bldg.
6650 So. Narragansett Ave., Chicago, Ill.



Ball-bearing
Clements
Cadillac

STANDARDIZATION PAYS

Universal Joints

Steel and Bronze



*Send for Circular giving specifications
and prices on complete line*

Boston Gear Works Sales Co.

North Quincy, Mass.

BOSTON NEW YORK PHILADELPHIA CLEVELAND CHICAGO

BOSTON GEARS



Townsend Centrifugal Multi-Blow Riveters

THE ONLY MACHINE THAT
IMITATES HAND RIVETING IN
EVERY WAY.

NUMEROUS TYPES FOR ALL
KINDS OF WORK.

Round and Flat heads, hollow and check rivets
from .008" to $\frac{5}{16}$ " without distortion or breaking
of fragile material. In places inaccessible by any
other method.

H. P. Townsend Mfg. Co.

Hartford, Conn.

Foreign Representatives:

G. H. Alexander Machinery Ltd., Birmingham, England
Andrews & George Co., Tokyo, Japan
Feenick Freres, Paris, France

Wood-Working Machinery

For a comprehensive display of new, up-to-date
wood-working machinery and allied equipment,
as well as lists of used machinery, consult

Wood-Working Machinery

It's a publication similar to this, but devoted to
the advertising of wood-working machines, in-
cluding saw mill equipment. A copy will be
sent you free on application.

Hitchcock Publishing Co.,
508 So. Dearborn St., Chicago, Ill.

"ALNOR" Pyrometers

for the
Hardening
Furnace

MODEL 223

Inexpensive, yet accurate and durable, the ALNOR Pyrometer is used by large and small shops everywhere for heat-treating work. Because of its low first cost and compact size it is also very popular for soft metal melting, galvanizing, die casting, japanning, enameling, measuring flue gas temperatures and many other purposes.



Write for descriptive folder

Illinois Testing Laboratories, Inc.
150 W. Austin Ave., Chicago, Ill.

MARKING DEVICES

RUBBER STAMPS



STEEL STAMPS



BURNING
BRANDS



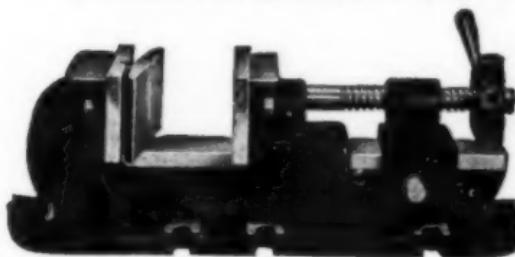
ETCHED METAL
NAME PLATES

BRASS
LABELS

THE SCHWERDTLE STAMP CO.
BRIDGEPORT, CONN.

Gem Drill Press Vise

With Automatic, Quick-Acting, Powerful Grip



*Holds
Irregular
Pieces
Firmly*

The jaws are made of steel, hardened and ground, with horizontal and vertical "V" grooves. The independent swivel jaw holds taper and irregular work with a bull-dog grip. Its quick action, powerful grip and adaptability make it *the most efficient vise on the market*. Made in three sizes. Write today for folder, picturing its use in drilling and milling operations.

J. E. Martin Tool & Die Works, 528 W. State St., Springfield, O.

"Champion" Emery Wheel Dresser

Outlasts a Dozen Cheaper Dressers

The "Champion" is made by experts, for long life and the best service. The only dresser that runs in an oil bearing.



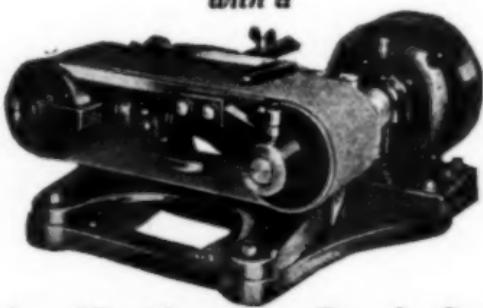
The most economical dresser you can buy. Cutters are made of the best grade of tool steel, milled and heat-treated and tempered —fully guaranteed. Get the complete details on this cost saving tool.

Write for Catalog also describing Champion Tool Holders, Expanding Mandrels, Vises, Clamps, Shop Furniture, Etc.

The Western Tool & Mfg. Co.
SPRINGFIELD, OHIO

Abolish Expensive Hand Finishing

with a



Simplex-M Abrasive Band Grinder

This Grinder accelerates production and cuts costs. Hand emerying or filing operations are antiquated in comparison. The use of this new modern machine assures straight grain finishes with sharp edges. *Details of this and other styles and sizes on request.*

WALLS SALES CORP., 96 Warren Street
NEW YORK

“Utility Tools”

Cut Replacement Costs

This Interchangeable Counterbore and Spot Facer is equipped to serve you better, longer and with greater economy—because of



Four Points of Superiority

- (1) Pilots cannot break or twist off.
- (2) Cutters cannot break and are easily removed.
- (3) Set screws cannot loosen.
- (4) The drive is the utmost in simplicity and power.

*If you are interested in tool economy,
send for catalog; it will pay you*

The J. C. Glenzer Company

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(See next page)

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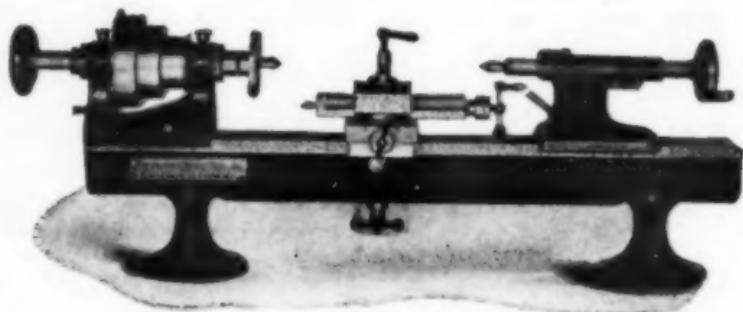
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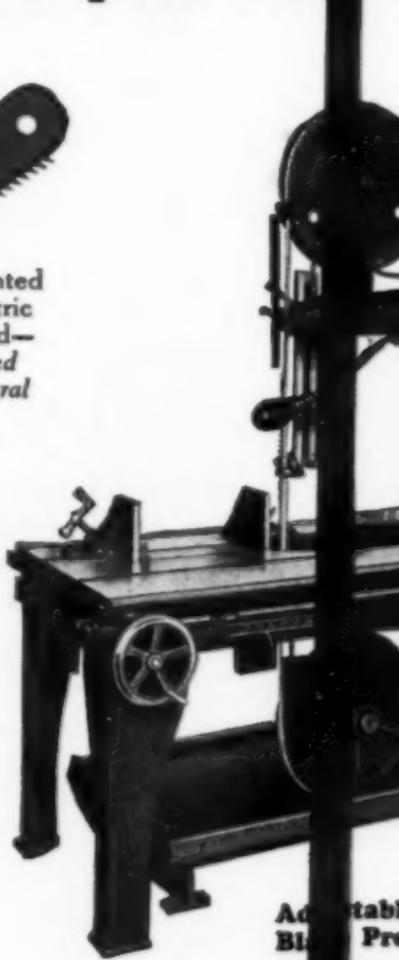
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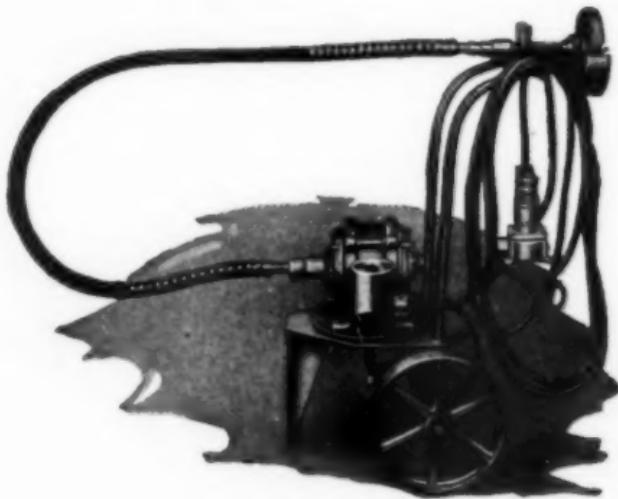
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Brakes, Hand Truck

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Brands, Burning

Schwerdtig Stamp Co., Bridgeport, Conn.

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Elio Tool & Screw Corp., Rockford, Ill.

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Sundstrand Machine Tool Co., Rockford, Ill.

Centers, Frictionless Live

Precision Gauge & Tool Co., Detroit, Mich.

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Precision Gauge & Tool Co., Detroit, Mich.

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Chucks, Collet

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Chucks, Ring Wheel Grinder

Graham Manufacturing Co., Providence, R. I.

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Conway Clutch Co., Cincinnati, O.

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Grinding Machines, Universal

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Tap Extractors

Walton Co., Hartford, Conn.

Tap Holders

Procurer Safety Chuck Co., 14 S. Clinton St., Chicago.

Classified Finding Index

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Burke Machine Tool Co., Conneaut, Ohio
Procurler Safety Chuck Co., 14 S. Clinton
St., Chicago
Whitney Metal Tool Co., Rockford, Ill.

Threading Machines, Automatic, Stud

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Threading Tools

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Av., Chicago

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United Machinery & Supply Co., St. Louis,
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Martin Tool & Die Works, J. E., Springfield, O.
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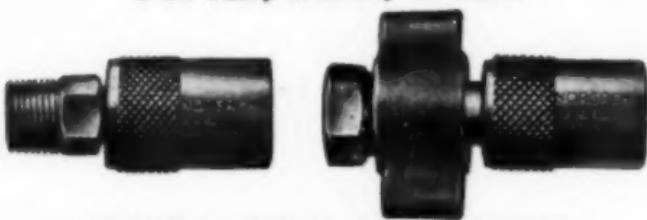
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Lists of Used and Rebuilt Machinery, either For Sale, Wanted, or For Exchange, set in uniform style, will be published in the Classified Section at the rate of 60 cents a line across the page, each issue, plus \$3.00 for name and address. Minimum charge, \$6.00. No display permitted.

Write directly to those offering the machines for sale, for prices and full descriptions. If what you seek is not advertised, use the blank enclosed to make known your wants in either new or used machinery and the publisher will pass them along to the advertisers.

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Grinder, 10"x36" Norton. Millers, Nos. 1 & 2 Brown & Sharpe.
Grinder, No. 10 B. & S. ext. Radials, 3' Cincinnati Bickford.
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Miller, No. 3 Cincinnati h. p. vertical, m. d.
Shaper, 20" Cincinnati 8-speed gear-box, m. d.

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Lathe, 18"-20"x20' L. & S. Planer, 30"x30"x8' Clev. openside.
Lathe, 19"-30"x8' LeBlond, gap. Press, No. 95F Toledo, 103 bel. hous.
Miller, 6"x18" P. & W. thread. Press, No. 3A Bliss.

FOR SALE BY

L. F. Seyfert's Sons, Inc., (Monarch Machinery Co. Div.)
437-39 North Third Street, - Philadelphia, Pa.
Milling machines, No. 0 Rockford; No. 2M Cincinnati.
Surface grinder, No. 2 Brown & Sharpe.
Screw machines, No. 3 Foster; No. 3AGH Foster; Nos. 2 & 4 W. & S.
Shapers, 16" Ohio; 20" Ohio; 20" G. & E.; 24" Cincinnati.
Planers, 24"x24"x6" to 48"x48"x20'; belt and motor drives.

USED AND REBUILT MACHINERY

FOR SALE BY

Miles Machinery Co.,

Saginaw, W. S., Mich.

1000 ton Bliss embossing.
No. 58^{1/2} Toledo tie rod.
No. 67 Consolidated tie rod.

21', 4^{1/2}"x14" Gardner.
40', 6"x6" Gardner.
92', 7"x6" Ingersoll Rand.

12"x6" Hendey.
14"x6" LeBlond.
15"x10" Carroll-Jameson.

Nos. 1^{1/2} As, 2 B & 3 B Milwaukee.
Nos. 2, 3 & 4 Cincinnati.
Nos. 1^{1/2}, 2, 2 B, & 3 Brown & Sharpe.

30"x30"x8' Cleveland openside.
36"x36"x8' G. A. Gray.
36"x36"x12' Cincinnati.

PRESSES

No. 165 Toledo toggle.
No. 6 Adriance o. b. L.
No. 5 Toledo o. b. i.

COMPRESSORS

140' 8"x6" Gardner Duplex.
446' 14"x9"x12" Ingersoll Rand
590', 14"x14"x15" Union steam.

LATHES

18"x8' Lodge & Shipley.
20"x8' Cisco geared head.
24"x12' Milwaukee.

MILLERS

Nos. 1^{1/2}, 2 & 2^{1/2} Rockford.
No. 2 & 4 Cincinnati vertical.
No. 6 Becker vertical.

PLANERS

42"x40"x10' New Haven.
48"x48"x10' Liberty.
72"x60"x14' Cleveland openside.

FOR SALE BY

Scott-Bansbach Machinery Co., 4607 West 20th St., Chicago, Ill.

Automatic screw machines, B. & S., No. 40, 0 and 2G.....	\$250. to \$400.
Automatic screw machine, Gridley 4 spindle "F" 1 ^{1/2} , 1 ^{1/2} & 1 ^{1/2} 300. to 400.	
Automatic screw machine, 3 ^{1/2} " Cleveland Model A, No. 2718.....	300.
Drill, 24" Sibley sliding head, b. g. and p. f.....	200.
Drill, 2-spindle H. W. h. s. b. b. heavy duty, class B.....	200.
Gear hobber, S. & S. No. 0, capacity 12"x10"x6 ^{1/2} d. p.....	250.
Gear cutter, B. & S. No. 3, 26" for spur gears.....	200.
Grinder, No. 2 Brown & Sharpe automatic surface, magnetic chuck.....	350.
Grinder, Capitol internal, capacity 3/16" to 2" x2".....	100.
Lathe, 18"x6" Hendey quick change, taper attachment, serial No. 19189.....	450.
Lathe, 18"x9" Chard semi-quick change gear.....	275.
Lathe, 20"x8" Monarch, d. b. g., q. c. chucks.....	300.
Lathe, 30"x13" H. S. & G. heavy duty, q. c., d. b. g. 16,000 lbs.....	1,000.
Miller, No. 3 Kempsmith, cone drive, with c/s and vise.....	500.
Miller, No. 1 Garvin universal, fully equipped.....	350.
Miller, Cleveland universal, No. 1 g. h., fully equipped.....	600.
Miller, No. 2 MU Garvin universal, fully equipped.....	450.
Miller, 12" Cincinnati, mfg. type, s. p. d., vise and pump.....	250.
Miller, Briggs, G. & E. manufacturing, 16".....	75.
Miller, No. 5 Becker vertical, no rotary.....	300.
Miller, No. 7 Becker, Lincoln type.....	75.
Miller, Ingersoll slab, 42"x36"x9".....	750.
Planer, 24x24x8 Fitchburg, 1 head.....	150.
Planer, 36"x36"x12" Cincinnati with 2 heads.....	800.
Press, No. 1, Consolidated o. b. i. 1 ^{1/2} " stroke, 700 lbs.....	80.
Press, No. 4 Niagara o. b. i. 2" stroke, 1500 lbs.....	125.
Press, No. 3 American (R & K) o. b. i. 2 ^{1/2} " stroke 2000 lbs.....	150.
Press, No. 3, L. & J. o. b. i. 2 ^{1/2} " stroke, 2000 lbs.....	200.
Press, No. 4 Niagara o. b. i. 2" stroke, 1700 lbs.....	175.
Press, No. 5 Niagara o. b. i. 2 ^{1/2} " stroke, 2500 lbs.....	250.
Saw, No. 5 Marvel high speed 6"x18".....	100.
Screw machine, No. 1, B. & O. plain head, 13/16" capacity.....	175.
Separator, Curtis oil, 1 bushel.....	200.
Separator, oil, American 1 ^{1/2} bushel.....	225.
Shaper, 20" Cincinnati, crank, back geared, vise and c/s.....	400.
Turret lathe, 28x10" Milholland, for chuck and bar work.....	475.
Turret lathe, 34"x36" Acme with chucking equipment.....	300.
Turret lathe, 28" Steinle, 4" hole, side carriage.....	200.

USED AND REBUILT MACHINERY

FOR SALE BY

West Penn Machinery Company

1208 House Building,

Pittsburgh, Pa.

Automatic, No. 0 Brown & S. b. d.
Auto. "G" Gridley, $\frac{1}{2}$ " & $\frac{1}{4}$ ", m. d.
Air compressors, 30 to 2500 cu. ft.
Bender, pipe, No. 6-C Wallace, m. d.
Blower, Spencer turbine, 1800 c. f.
Bolt cutter, 1" Landis, 3 hds., m. d.
Bolt cutter, $\frac{1}{2}$ " Landis, dbl. head.
Bolt cutter, 28" Acme, sgl. hd. m. d.
Bor. mill, 48" Bullard Maxi. 2 hds.
Boring mill, 72" Pond, 2 hds., b. d.
Boring mill, 96" Pond, 2 hds. m. d.
Boring mill, 16"-24" Niles, 2 hds. b. d.
Boring mill, floor type, 4" Bement.
Brake, 5' press type, 10 gauge.
Brake, 6' D. & K. 10 ga. box & pan.
Brake, 8' D. & K. 10 ga. box & pan.
Brake, 10' Dreis & K. $\frac{1}{2}$ ", m. d.
Bulldozers, Nos. 2, 4, 6, 28, 29 & 30.
Cranes, Electric Traveling.
Die threader, Smalley General, dies.
Dieing mches., 25 & 50 ton H. & W.
Die sinker, No. E-2 Keller, m. d.
Drill, 21" Rockford, tap. att. m. d.
Drill, radial, 24" Fosdick, t. a. b. d.
Drill, radial, 34" Cin.-Bickford, a.p.d.
Drill, radial, 4" Prentice, t. a. b. d.
Drill, radial, 6" Dreses, s. p. d.
Flanger, McCabe, $\frac{1}{2}$ " capacity, dies.
Gear cutters, 11", 24" & 36" Gleason.
Gear cutter, spur, 36"x10" Newark.
Gear hobber, No. 4 Sch. & Sch. 118".
Gear planer, 20-ft. Gleason, m. d.
Grinder, centerless, No. 2 Cincinnati.
Grinder, centerless, No. 4-C Detroit.
Grinder, internal, No. 70 Heald.
Grinder, rad., 14" M. & D., m. d.
Grinder, surface, No. 16 Blanchard.
Grinder, surface, 14" Arter.
Grinder, surface, No. 2 Reid, b. d.
Grinder, tool & cut., No. 2 Walker.
Hammer, Blacker, power, 35-lbs.
Hammer, 90-lb. Bradley, cush. helve.
Hammer, 200-lb. Bradley, cush. helve.
Hammer, 200-lb. Bradley, compact.
Hammers, Nos 3-B, 4-B, 4-N Hazel.
Hammers, steam, 600 lb. to 6000 lbs.
Header, No. 2 Wat. Far., o.d., tr. st.
Jacks, 35-ton Barrett, ball bearing.
Keyseater, No. 0 & 3 Baker.
Lathe, 16"x16" Le Blond, q. c. g., d.b.g.
Lathe, 20"x8" Hendey, the bar, t. a.
Lathe, 24"x16" Bridgeford, g. hd. m. d.
Lathe, 48"x26" Bridgeford, g. hd. m. d.
Lathe, turret, No. 6 Warner & S.
Lathe, turret, 18" Libby, m. d.
Lathe, turret, 24" Steinle, $\frac{1}{2}$ " hole.
Lathe, tur., 26" Gisholt, $\frac{1}{2}$ " hole, m. d.
Lysholm tables, 72"x30".
Miller, plain, No. 2-A Milwaukee.
Miller, thread, No. 5 Lees Bradner.
Miller, universal, No. 3 Brown & S.
Miller, vertical, No. 2 Cincinnati.
Nut tapper, 6-spindle Acme, 2".
Pipe machine, 2" Landis.
Pipe mch., 8" Oster, 8" Williams.
Planer, 30"x30"x10" Woodward & P.
Planer, 48"x48"x18" Cinti., belt drive.
Planer, o. s., 36"x36"x16" D. & H.
Planer, o.s., 48"x48"x16" D. & H.m.d.
Planer, rotary, 48" Niles, m. d.
Presses, arbor, No. 17 Greenert.
Press, o.b.i. Ferracutte C1, 3" stroke.
Press, o.b.i. CG-6 Ferracutte, 12000lbs.
Press, hydraulic, 1,000 ton United.
Press, hyd. 100-ton Watson-Stillman.
Press, s. s., 13"x19 $\frac{1}{2}$ ", 2" stroke.
Press, No. 78 Bliss, t. r. 10" str.
Press, No. 92 B Toledo, d. c. 24" str.
Press, No. 94-A Toledo, d. c. 5" str.
Press, screw, No. 87 Niagara.
Press, wheel, 150-ton Schaffer.
Punch, beam, No. 5 Hilles & Jones.
Punch, hor., Cleveland, 1" thru 1".
Punch, hand, Shatz, bar and angle.
Punch & sh. No. 6 L. & A. $\frac{1}{2}$ " thru $\frac{1}{2}$ ".
Punch & s., Rock. R. $\frac{1}{2}$ "- $\frac{1}{2}$ ", 39" thr.
Punch & s., Cleveland "C" 48" thr.
Punch, multiple, No. 5 H. & J. 10'.
Riveters, air, hammer, spinning.
Rolls, bending, 7"x8" Cleveland.
Rolls, bending, 12"x12" H. & J. d. e.
Roller, thread, Nos. 40 & 50 W. - F.
Sand blast, Pangborn, 90", ER-1.
Saw, band, metal No. 2 Klem, m. d.
Saw, cold, 48" Newton, m. d.
Saw, friction, Nos. 2 & 3 Ryerson.
Saw, hack, No. 5 Marvel, b. d.
Screw mch., No. 2 B. & S. wire feed
Shapers, 16", 20", 24" & 36" G. & E.
Shear, angle, 6"x16"x1" H. & J.
Shears, alligator, $\frac{1}{2}$ ", 2", 3" & 4".
Shear, bevel, Lennox $\frac{1}{2}$ ".
Shear, circle, No. 208-A Niagara.
Shear, No. 1 Gray, 3/16", 34" gap.
Shear, gang slitter, No. 235-A Bliss.
Shear, Cleveland "W" 3" capacity.
Shear, guil. No. 5 H. & J. 4" sq., m. d.
Shear, rotary, $\frac{1}{2}$ " Ryerson.
Shear, 36"x16 ga. Pexto, foot.
Shear, squaring 8"x14 ga. Ohi.
Shear, sq., 10"x10 ga. Kutschied, m. d.
Shear, $\frac{1}{2}$ " x $\frac{1}{2}$ " Garrison, 24" gap.
Shear, 12" x $\frac{1}{2}$ " Wheeling, 31" gap.
Slotted, 18" Dill, motor drive.
Straightener, 60" Nat. 14 ga. 17 rolls.
Straightener, 48" United, 16 ga. 13 rolls.
Straightener, 18" round Abramson.
Straightener, 4" round Abramson.
Swaging mch., No. 5-A Standard.
Testing mch., Brinnell hardness.
Testing mches., 50,000 & 100,000-lb.
Tumbling barrel, 18"x36", b. d.
Upsetters, 1" to 6".
Welders, spot and butt.

USED AND REBUILT MACHINERY

FOR SALE BY

M. A. Wertman Machinery Co., 427 Penton Bldg., Cleveland, Ohio

Boring mill, King 40", 1 swivel and 1 turret head, swings 42", A1.
Brake, Ohl 8"x10 ga., press type, near new condition.
Cylinder borer, Moline 5-D, six spindles, very best condition.
Drill, Allen No. 2, 4-spindle automatic feed, late machine, fine condition.
Grinder, Landis 6"x18", self contained, (2).
Grinder, 14"x72" Norton, m. d.
Grinder, No. 1 Brown & Sharpe universal, full equipment.
Pinion cutter, Sloan & Chace No. 1 Automatic, magazine fd., excellent cond.
Sprue cutter, Coleman No. 5, 12" throat, capacity 1"x1 $\frac{1}{2}$ ", near new.
Turret lathe, No. 4 W. & S. universal, geared head.

FOR SALE BY

Chas. Molitor Machinery Co., 118-124 S. Clinton St., Chicago, Ill.

MILLERS

No. 3B Brown & S., single pulley. | No. 2 Hendey univ., single pulley.
No. 2 Milwaukee, double arm, s. p. | No. 2 Kempsmith, cone type.

SHAPERS

32" Columbia, single pulley. | 16" Milwaukee, motor drive.
24" Potter & Johnston, rotary table. | 20" Gould & Eberhardt; 7" Rhodes.

PRESSES

3 $\frac{1}{2}$ Bliss toggle draw., 12" stroke. | No. 5 double action cam, roller feed,
7 $\frac{1}{2}$ Cons. No. 64 Bliss, 6" stroke. | power bench and foot power.

MISCELLANEOUS

Bench lathes.
Bolt cutters, Landis.
Drills, hi-speed, 1, 2, 3, 4 and 6.
Engraving machine, Deckel.
Gear cutters, No. 13 Brown & S. spur
and bevel; Hardinge bench.
Over 100 Lathes and Screw Machines; 2000 Collets, Brown & Sharpe. Etc.
Chucks, Vises, Comp. Slide Rest, Sur. Plates, Die Hds., Gears, Mch. Parts Etc.

FOR SALE BY

Wm. C. Johnson & Sons Machinery Co..

1211-1223 Hadley Street,

Bar shear, 5"x $\frac{1}{2}$ ".
Boring mill, 36" Gisholt.
Drill, 16" Mason high speed.
Drill, 20" Champion.
Drill, 22" Barnes, back geared.
Drill, 24" Prentice, sliding head.
Drill, 25" Barnes back geared.
Drill, 28" Barnes sliding head.
Drill, 1-spindle Avey.
Drill, 2-spindle Leland-Gifford.
Drill, 3-spindle Avey.
Grinder, Wells Bros. universal.
Grinder, 12"x60" Landis universal.
Hammer, 60 lb. Bradley helve.
Hammer, 600 lb. steam.
Lathe, 18"x10" Bradford.
Lathe, 20"x10" Bradford.
Lathe, 24"x12" Lodge & Shipley.
Lathe, 24"x12" Schumacher & Boye.
Lathe, 30"x15" Lodge & S., q. c. g.
Lathe, 36"x15" American, q. c. g.
Miller, No. 1 U. S. hand.
Miller, No. 2 LeBlond universal.

St. Louis, Mo.

Miller, No. 3 Ohio single pulley dr.
Miller, No. 3 Rockford hand.
Miller, No. 5-B Brown & Sharpe.
Pipe machine, 4" Oster.
Pipe machine, 8" Williams.
Press, No. 57 Swaine straight back.
Press No. 16 Bliss toggle.
Press, No. 3 Toledo.
Press, Stiles & Parker drawing.
Press, No. 37 Niagara str. back.
Press, No. 34 Toledo cam drawing.
Press, No. 723 Toledo cam drawing.
Punch, No. 14 W. W., 12" throat.
Punch, double end, two 20" throats,
capacity 1" in 1".
Planer, 42"x42"x28" Wheeler, 2 hds.
Screw machine, No. 3A Warner & S.
Shaper, 16" Smith & Mills.
Shaper, 32" Cincinnati.
Shaper, 24" American-Klopp.
Shear, 48" Excelsior, No. 16 gauge.
Squaring shear, 8" power.
Tapper, auto., Rickert & Schafer.

USED AND REBUILT MACHINERY
FOR SALE BY

Marr-Galbreath Machinery Co.,

Air comp. 6,15,21,45,107,129,213 cu. ft.
Air comp., 1050 cu. ft. Syn. m. d.
Air receiver, 48" x 10' for 150 lb.
Auto. lathes, 14" Fay, belt and m.d.
Barrel, 19" x 24", tile lined, b. d.
Bender, hand, 3/16" x 1" Wallace.
Bender & straight'r, cap. 12" beams.
Blower, No. 40 Connerville.
Blowers, Root No. 4, 500 c. p. m.
Bolt cutter, 4" Geometric, m. d.
Bolt cutter, 1" Wells Bros., m. d.
Boring mill, 30" King; and Bullard.
Boring mill, 100" Pond, for m. d.
Boring mill, 14" Betts, 2 hds., m. d.
Brake, 6" D. & K., 16 ga. hand.
Brake 10' Keene toggle, 16 gauge.
Brake, power, 8" x 10 ga. Chicago.
Brakes, hd, 10', for 18 ga. Robinson.
Broaching mch. No. 4 Oil Gear, m.d.
Broaching mch. Nos. 1 & 3 LaPointe
Chuck, Heald magnetic 14 $\frac{1}{2}$ x 40".
Chuck, Walker magnetic, 6" diam.
Cold header, 8" W.F., solid die.
Cold saws, Nos. 11 $\frac{1}{2}$ and 12 Higley.
Crimping roll, 6" Robinson, 16 ga.
Drill, elect. 6" U. S., 110 v. Univ.
Drills, 14" T. & F., 2 and 3 spindle.
Drills, multiple 10 and 20 spindle.
Drill, 24" Rockford, g. f. taper att.
Drill, 25" Snyder, s. h. b. g.
Drill, radial, 5" Western, g. b., m. d.
Drill, radial, 3 $\frac{1}{2}$ " C-B., g. b. for m. d.
Drill, sensitive radial, 3" Amer. t.a.
Exhauster, with 1 $\frac{1}{2}$ h.p. motor, 1/60.
Folders, bench 30" hand (4).
Forging mch., 1 $\frac{1}{2}$ ", 3" & 3 $\frac{1}{2}$ " (steel).
Furnace, rotary annealing, 12" x 8".
Furnaces, oil tempering, 10" x 10" x 10".
Gear hobbers, No. 1 Adams "Farw.
Gear hobber 12" S-S "TRO".
Gear and pinion cutter, No. 3 Sloan.
Grinder, No. 14 Landis universal.
Grinder, No. 1 LaSalle surface.
Grinder, 18-D. Rowbottom, o.h.b.b.
Grinder, No. 1 Norton tool & cutter.
Groover, 30" Niagara, hand.
Hack saw, 6x6" Marvel, motordrive.
Hack saw, 12" x 12" Racine.
Hack saw, Peerless, 6" univ. shaping
Hammer, 50 lb. Kane & Roach, pwr.
Ham., 400 lb. No. 10 Beaud., pwr. b.d.
Hammer, 800 lb. Erie sm. forg., s.f.
Hammer, 1000 lb. Chbg., steam drop.
Hoists, chain, 1 to 8-ton capacity.
Keyseaters, No. 2 Baker.
Keyway cutter, 24" Morton, cap. 24".
Lathe, Sundstrand 7" Mfg. type.
Lathe, 14" x 6" Hendey, m. d., t. a.
Lathe, 14" x 6" L. & S. q. c. g., t. a.
Lathe, 16" x 6" Monarch, q. c. g.
Lathe, 16" x 8" Hendey, tiebar, quick
change gear, taper attach.
Lathe, 14" x 8" W.-B., q. c. g.
Lathe, 16" x 11" Lehman, q. c. g., t. a.
Lathe, 18" x 8" L. & S. sel. hd. m.d.t.a.

58 Water St., Pittsburgh, Pa.

Lathe, 18" x 8" D. B. G., q. c. g. chuck.
Lathe, 18" x 8" Hendy, q. c. g., t. a. col.
Lathe, 19" x 10" LeBlond, q. c. g., t. a.
Lathe, 20" x 12" Monarch, q. c. g.; t. a.
Lathe, 22" x 10" American, q. c. g., t. a.
Lathe, 22" x 10" 10" Greaves-K., q. c. g.
Lathe, 24" x 13" Lehman, g. h., q. c. g., t. a.
Lathe, 26" x 15" G-K. for motor.
Lathe, 30" x 15" Lehman, gd. hd.
Lathe, 32" x 16" Pgh., q. c. g., chuck.
Lathe, 32" x 20" geared head, m. d.
Miller, No. 29 Ohio pl. auto. feeds.
Millers, pl. No. 3 B. & S., LeBlond.
Miller, universal No. 4 B. & S.
Miller, vert., Becker, Nos. 3 & 5-B.
Miller, auto. No. 2-M.P. & J., s.p.d.
Motors, single and three phase.
Motor, 25 h.p. slip rg., 3/60/220/1160.
Pipe benders, 2" Chgo. & Wallace.
Pipe mch., 10" EC & B., 6" Oster.
Planer, 30" x 10" W. & P., 2-heads.
Press, 76-D Pexto, d. c. 10,000 lbs.
Press, No. 14 Toledo horn.
Presses, No. 3 Bliss, punch type.
Presses, o.b.i., No. 1 Toledo.
Press, No. 19, Bliss o. b. i.
Press, o.b.i. No. 3 Niagara, 14" str.
Presses, foot, No. 87 Bliss, pendulum.
Press, No. 6 Perkins, s. s., 4000 lbs.
Presses, No. 87 Niagara, screw.
Punches, s. e. 36", 48", 60", 72" thts.
Punch, s. e., Badger, 7" thrt., 8" x 8".
Punch, No. 13 Niagara hand power.
Punch, Rapid, 20" thrt., 1" x 8", m. d.
Punch & shear, No. 17 Badger comb.
Punch & shear, d. e. 16" thts; 1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "
with angle & bar shear blades, m.d.
Punch & stake riveter, No. 123-C.
Toledo boilermakers.
Riveters, 1-A, 2-A, 3-A, 54-B, hi. speed.
Rolls, 30" x 1 $\frac{1}{2}$ ", 31" x 3".
Rolls, hand, 31" x 2" P. S. & W.
Screw machine, No. 96 B. & S.
Shaper, 7" Rhodes, vert. ram. m. d.
Shaper, 16", Cin., b. g., crank.
Shaper, 20" G. & E., b. g., vise.
Shaper, 24" G. & E., gear box, s.p.d.
Shaper, 25" S. & M., b. g., crk., A-1.
Shear, 42" x 8" Niagara, 18" gap.
Shear, 42" x 10 ga. Niagara, 16" gap.
Shears, 8" & 10" Lennox, throatless.
Shear, foot, 30" x 20 gauge.
Shears, Alligator, 14", 2", 24" & 3".
Shear, alligator, No. 2 Badger, 2".
Shear, rotary, 12" thrt., cap. 16 ga.
Shear, rotary, 16 ga., Yoder, 24" thrt.
Shear, squaring, 8" x 14 ga. power.
Shear, squaring, 60" x 14 ga. Canton.
Shear, 10" x 16 ga. Ohl power.
Slotter, 15" Dill, for motor drive.
Tappers, No. 2 Garvin, vertical.
Tube cutter, Fox 24" cap.
Turret lathe, 28" Gisholt, 9 $\frac{1}{2}$ h. s.
Turret lathe, 26" x 7 $\frac{1}{2}$ " h. s., Libby.
Wheel press, 60-ton W. S., 34" x 8 $\frac{1}{2}$ ".

USED AND REBUILT MACHINERY

FOR SALE BY

Interstate Machinery Co. . . . 130-2 So. Clinton St., Chicago, Ill.
Bulldozer, No. 2 Williams & White.
Keyseater, No. 2 Mitts & Merrill.
Lathe, 11" x 3' Sheldon q. c. g., m. d.
Press, No. 5 Bliss Styles b. g.
Press, 88 ton Clev. gap frame b. g., o. b.
Press brake, 10' 3/16" D. & K. steel.
Shaper, 26" Stockbridge p. d. f., b. g.
Shear, 10' 14 ga. Berthch m. d., comp.
Stake riveter, 62" Kling.
Welder, 25 KVA Thompson spot.

FOR SALE BY

United Machinery & Supply Co., 1241 Walton Ave., St. Louis, Mo.
Bolt cutters, 1 1/2" & 3".
Drills, radial 2 1/2 & 3 1/2" m. d.
Hammer, Little Giant No. 20 m. d.
Lathe, gap 14" x 8".
Lathe, Seneca Falls 12" x 6".
Miller, 1 1/2 B Milwaukee universal.
Shaper, 18" crank back geared.
Punch, No. 5 H. & J. horizontal.
Punch & shear, 1 1/2" in 8" double.
Wheel press, 50 ton m. d.

FOR SALE BY

The Reeve-Fritts Co., 558-560 W. Washington Blvd., Chicago, Ill.
Drill, 6-spindle H. & W., b. b.
Drill, 2-spindle Leland Gifford.
Grinder, 15" bench, table feed.
Gear hobber, No. 1 Adams.
Lathe, 14" x 8" Hendey q. c. g.
Lathe, 20" x 10' LeBlond q. c. g.
Lathe, 18" x 6" Ryerson q. c. g.
Miller, No. 1 P. & W. bench.
Miller, No. 2 Rockford plain.
Power press, No. 18 Bliss, o. b. i.

FOR SALE BY

James J. Gouse . . . 361 Atlantic Ave., Boston, Mass.
Drill, 4-sp. L-G No. 2, variable speed, motor head, 220 v., power feed to all spindles, 2 spindles, back geared.
Lathe, 18" x 20' L. & S. sel. hd., 16' centers, 2 car., pan, pump, rear tl. blks.
Press, F. F. double crank, 14" stroke, die space 12", 18,000 lb.
300 other tools in stock. Inquiries solicited.

FOR SALE BY

The E. L. Easley Machinery Co.
Telephone Randolph 9191 551 W. Washington Blvd., Chicago
Brake, 8', No. 18 gauge, Robinson.
Press brake, 10' No. 10 gauge Ohl.
Presses, No. 165-B Consolidated grd.
Presses, Nos. 19 and 21 1/2 Bliss.
Presses, No. 5 Toledo, o. b. i.
Press, No. 7-A Niagara.
Press, No. 4 Loushbaugh-Jordon.
Shears 10' 3/16" cap. Niagara m. d.
Shears 11' No. 14 gauge Niagara.
Shear, 52" No. 16 gauge Niagara ft.

FOR SALE BY

Strafer Machinery Company. Jersey City, N. J.
14th and Provost St.

HEAVY PRESSES

Ferricute 200 ton 82" double crank.
Ferricute 70" geared double crank.
No. 77 1/2 Bliss double back geared.

MISCELLANEOUS.

Boring bars, portable, 4" x 8'.
Brake, Geo. Ohl, 8'.
Compressor, 8" x 6" I.-R. horiz. m. d.
Grinder, disc No. 8 Badger, 30" b. b.
Hammer, 400 lb. Chamber, air, steam.
Keyseater, No. 5 Mitts & M. 25" str.

No. 59 Toledo double back geared.
No. 75 1/2 Bliss fly wheel type.
400 ton Watson Stulman hydraulic.
Lathe, 40" - 72" x 15' Fay Scott gap.
Pipe machine, 6" Saunders b. d.
Planer, 48" x 16' Pond 4 heads.
Planer, 48" x 12' D. & H. open side.
Squaring shear, 10' 14 ga. Niagara.
Squaring shear, 5' 14 ga. L. & N.

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Foster Machinery Company,

2613 E. 73rd St., Cleveland, Ohio

Blue print machine, "Wickes".

Drill, No. 2 Bausch multi-spindle.

Draw bench, 12' Waterbury-Farrell.

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Lathe, 16"x10' Whitcomb & Blaisdell.

Lathe, 19"x12' Le Blond heavy duty.

Riveter, 3-A High Speed, 3 A.H.D.

Riveters, air, 30 ton & 50 ton Hanna.

Rotary planer, 50" Cleveland.

Shaper, 24" Gould & Eberhardt.

Shear, 12"x14 ga. Loy & Nawrath.

Turret lathe, No. 3-A Warner &

Swasey univ., chucking equip.

Welder, National butt, cap. 1".

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Punch presses, Nos. 1, 2 & 3 Rockford.

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No. 13B Bliss, double crank, fly, 79" bet. uprights, weight 15,000 lbs.

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Shears, 8x3/16" Ohl.

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164 Toledo.

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Shears, 10" Streine, 14 gauge.

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Lathe, 30"x16" L. & S., d. b. g.
Lathe, 48"x20" Betts-Bridge, a. c. m. d.
Miller, No. 2 Cincinnati universal.
Miller, No. 2 Rockford, vert. att.
Miller, No. 2-AS Milwaukee, a. p. d.
Press, Toledo No. 4 o. b. i., geared
4" stroke, 3450 lbs.

Press, No. 6 Yankee, bench type.
Pipe machines, 2" & 6" Oster, m. d.
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Grinders, B. & S. No. 2 universal;
B. & S. No. 2 surface, complete.
Grinders, Landis 16"x12" universal.
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20" b. g.; Rhodes 7"; Queen City
16" b. g.; Potter & J. 16".
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100 other tools in stock.

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Lathe, 36" x 14" Bradford.
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Lathe, 24" x 13" Boye-Emmes.
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D. late type.
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46" x 16" H. S. & G. Grd. Hd., late type
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D. B. G. Q. C.
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18" x 8" Reed-Prentice Grd. Hd. Q. C.
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12" Pratt & Whitney Surface.
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No. 2 Brown & Sharpe Surface.
No. 3 Brown & Sharpe Universal.
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Grinder, complete equipment.

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overarm, late type.
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72" Niles Vertical, 6 step cone pulley drive, 2 swivel heads on rail.
Rockford Horizontal Boring and Drilling Machine, 2 step cone drive.

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Allen, Avey, Cleveland, Fosdick, Henry & Wright, Leland & Gifford. Sipp High Speed Ball Bearing, single and multiple spindle types, 8" and 12" overhang.
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16"x8" L. & S. q. c., 3 step cone drive.
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- 1-No. 2-5" Bar Barrett.
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- 5-No. 1-A Fox.

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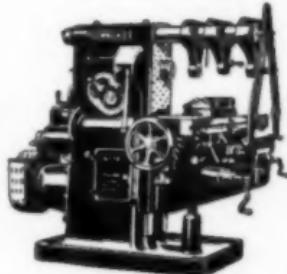
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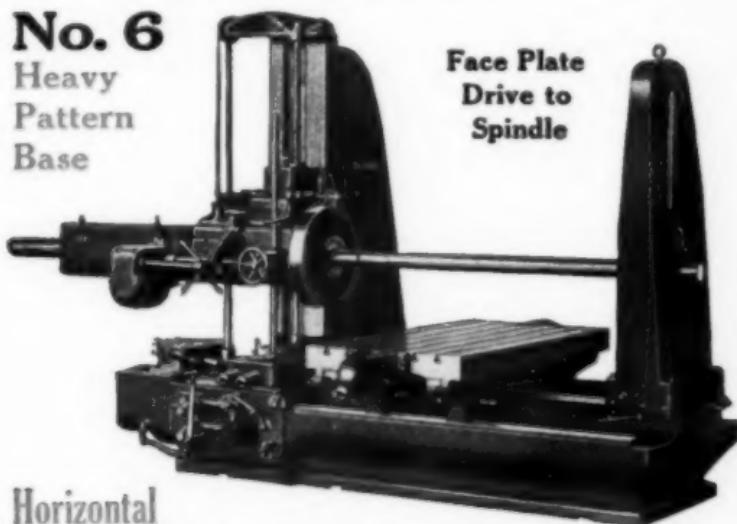
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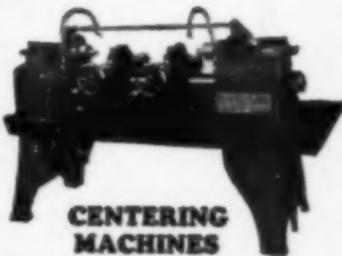
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